Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in this application.

1. (*Withdrawn*) A variable-optical-characteristic optical element characterized by using at least two selected from the group consisting of electrostatic force, electromagnetic force, a piezoelectric effect, magnetostriction, a fluid pressure, a magnetic field, an electromagnetic wave, a temperature change, and a photomechanical effect.

2. (*Withdrawn*) A variable mirror characterized by using at least two selected from the group consisting of electrostatic force, electromagnetic force, a piezoelectric effect, magnetostriction, a fluid pressure, a magnetic field, an electromagnetic wave, a temperature change, and a photomechanical effect.

3. (*Withdrawn*) A variable-focus lens characterized by using at least two selected from the group consisting of electrostatic force, electromagnetic force, a piezoelectric effect, magnetostriction, a fluid pressure, a magnetic field, an electromagnetic wave, a temperature change, and a photomechanical effect.

4. (*Withdrawn*) A variable-optical-characteristic optical element capable of achieving high-precision optical deflection by combined use of two or more different driving methods to change optical deflection thereof, wherein each driving method is capable of achieving a different optical deflection change.

5. (*Currently Amended*) A variable-optical-characteristic optical unit, comprising:

a variable-focus optical element having a fluid portion, and an electrode adjacent to said fluid portion; and

a power source unit and a driving circuit for driving said variable-optical-characteristic optical unit, wherein:

said power source unit or driving circuit includes a booster member that is connected to the power source unit and generates a voltage necessary in said driving circuit, wherein the booster member includes a transformer using a coil or a piezoelectric transformer, and

said variable-optical-characteristic optical unit is capable of achieving optical deflection.

6. (*Previously Presented*) A variable-optical-characteristic optical unit according to claim 5, wherein electrostatic force or piezoelectric effect is used for driving said variable-optical-characteristic optical unit.

7. (*Withdrawn*) A variable-optical-characteristic optical element comprising a deformable optical surface and a member for creating a magnetic field, wherein a substrate of said optical surface is made of a magnetostrictive material, and said member is capable of changing an intensity of the magnetic field.

8. (*Withdrawn*) A variable-optical-characteristic mirror that uses a magnetostrictive material and comprising a deformable optical surface.

9. (*Withdrawn*) A variable-optical-characteristic lens comprises a deformable optical surface and a member for creating a magnetic field, wherein a substrate of said optical surface is made of a magnetostrictive material, and said member is capable of changing an intensity of the magnetic field.

10. (*Withdrawn*) A variable-optical-characteristic optical element comprising a deformable optical surface, wherein a transparent member for covering a whole deformable portion thereof is provided near said optical surface.

11. (*Withdrawn*) A variable-optical-characteristic optical element according to claim 10 which is a variable mirror or a unifocus mirror.

12. (*Withdrawn*) A variable-optical-characteristic optical element comprising a light source for driving said variable-optical-characteristic optical element, wherein a substance having a photomechanical effect is used for deformation of an optical surface, and optical deflection changes by deformation of the optical surface.

13. (*Withdrawn*) A variable-focus lens comprising a light source for driving said varifocal lens, wherein a substance having a photomechanical effect is used for deformation of an optical surface, and optical deflection changes by deformation of the optical surface.

14. (*Withdrawn*) A variable mirror characterized by using a photomechanical effect.

15. (*Withdrawn*) A variable-optical-characteristic optical element characterized by having at least two different kinds of light sources and using a photomechanical effect.

16. (*Withdrawn*) An optical apparatus comprising a variable-optical –characteristic optical element, wherein said variable-optical-characteristic optical element comprises an optical surface, and a space that faces a whole portion thereof that is to be deformed is closed up with a transparent member and a mechanical member, which is characterized in that the variable-optical-characteristic optical element is a variable mirror.

17. (*Withdrawn*) An optical-apparatus comprising a variable-optical-characteristic optical element, wherein said variable-optical-characteristic optical element comprises an optical surface, and a space that faces a whole portion thereof that is to be deformed is airtightly closed up with a transparent member and a mechanical member, which is characterized in that the variable-optical-characteristic optical element is a variable mirror.

18. (*Withdrawn*) An optical apparatus according to claim 16, which is characterized by using an air-permeable mechanical member or transparent member.

19. (*Cancelled*)

20. (*Withdrawn*) An optical apparatus according to claim 18, which is characterized in that the variable-optical-characteristic optical element is a variable mirror.

21. (*Currently Amended*) A variable-optical-characteristic optical unit having a deformable optical surface, comprising:

a variable-optical-characteristic optical unit having said deformable optical surface; and

a control system for driving said variable-optical-characteristic optical unit, wherein said variable-optical-characteristic optical unit includes a fluid portion for deforming said deformable optical surface and an electrode adjacent to said fluid portion, and said control system includes a booster member that is connected to a power source, and for applying a voltage necessary for driving said variable-optical-characteristic optical unit,

wherein the booster member includes a transformer using a coil or a piezoelectric transformer.

22. (*Previously Presented*) The variable-optical-characteristic optical unit according to claim 21, which is a varifocal lens or a variable mirror.

23. (*Cancelled*)

24. (*Previously Presented*) An imaging system, comprising an image pickup device and an imaging optical system for which a variable-optical-characteristic optical unit as recited in any one of claims 5, 21, and 22 is used.

25. (*Currently Amended*) An imaging system including a display unit, comprising

a variable-focus optical element,

a power source unit and a driving circuit for driving said variable-focus optical element,

a computing unit,

an image pickup device, ~~and~~

an imaging optical system, wherein said power source unit or said driving circuit includes a booster member that is connected to a power source, and generates a voltage necessary in said driving circuit, and

a display configured to be in communication with and to display an output signal from the variable-focus optical element,

said variable-focus optical element is capable of achieving optical deflection,

said computing unit examines a high-frequency component of each image picked up while being defocused, and the position where the high-frequency component reaches a maximum is determined to be an in-focus position, and

said variable-focus optical element is used for autofocusing of said imaging optical system.

26. (*Currently Amended*) ~~A~~ An imaging system including a display unit, comprising

a variable-focus optical element having a deformable optical surface,

a control system for driving said variable-focus optical element,

a computing unit,

an image pickup device, ~~and~~

an imaging optical system, wherein said control system includes a booster member that is connected to a power source, and operable to apply a voltage necessary for driving said variable-focus optical element, and

a display configured to be in communication with and to display an output signal from the variable-focus optical element,

said computing unit examines a high-frequency component of each image picked up while being defocused, and the position where the high-frequency component reaches a maximum is determined to be an in-focus position, and

said variable-focus optical element is used for autofocusing of said imaging optical system.

27. (*Withdrawn*) The variable-optical-characteristic optical element according to claim 10 or 11, wherein said transparent member is a lens.

28. (*Withdrawn*) An imaging system, comprising an imaging optical system including a variable-optical-characteristic optical element as recited in claim 10 or 11.

29. (*Withdrawn*) An optical apparatus, comprising a variable-optical-characteristic optical element having a deformable optical surface, wherein a space including a whole deformable portion is closed up with a transparent member and a mechanical member.

30. (*Withdrawn*) An optical apparatus, comprising a variable-optical-characteristic optical element having a deformable optical surface, wherein a space including a whole deformable portion is airtightly closed up with a transparent member and a mechanical member.

31. (*Withdrawn*) The optical apparatus according to any one of claims 16, 17 and 30, wherein said transparent member has a lens action.

32. (*Withdrawn*) The imaging system according to claim 16 or 17, which comprises an image pickup device and an imaging optical system including said variable-optical-characteristic optical element, wherein autofocusing or zooming is carried out by deformation of said optical surface.

33. (*Withdrawn*) The imaging system according to any one of claims 16, 17 and 30, which comprises an image pickup device and an imaging optical system including said variable-optical-characteristic optical element, wherein a contrast type of autofocusing is carried out by deformation of said optical surface.

34. (*Withdrawn*) The optical apparatus according to any one of claims 16, 17 or 30, which comprises a display device.

35. (*Withdrawn*) The optical apparatus according to any one of claims 16, 17 or 30, which comprises a lookup table for deforming the optical surface of said variable-optical-characteristic optical element.

36. (*Withdrawn*) The optical apparatus according to any one of claims 16, 17 or 30, which comprises a plurality of said variable-optical-characteristic optical elements, wherein zooming is carried out.

37. (*Withdrawn*) The optical apparatus according to any one of claims 16, 17 or 30, which is a cellular phone.

38.-39. (*Cancelled*)

40. (*Previously Presented*) A cellular phone having said imaging system as recited in claim 24.

41. (*Previously Presented*) A cellular phone having said imaging system as recited in claims 25 or 26.